

PATENT ABSTRACTS OF JAPAN

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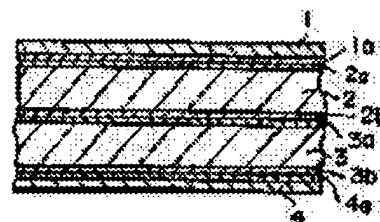
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(54) CARD MATERIAL FOR CASH CARD OR THE LIKE

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent a harmful gas from arising at the time of being burnt by a method wherein base materials having a specified size and comprising a plurality of polyester films of a proper thickness, are heat-pressed and bonded with a bonding layer comprising polyethylene between respective base materials, and are formed into a specified dimension.

SOLUTION: Among base material 1-4 comprising polyester, the base materials 2, 3 are opaque colored, preferably white polyester films of which the thicknesses are respectively approx. 250 μm , and for the base materials 1, 4, a transparent polyester film of which the thickness is approx. 50 μm is used. 1a, 2a, 2b, 3a, 3b, 4a are bonding layers of a thickness of approx. 30 μm , which are formed by laminating a polyethylene film on the bonding surfaces of respective base materials 1-4, and when a card material is formed by polymerizing and heat-pressing the base materials 1-4, the thickness is made approx. 760 μm . Also, normally, for the base materials 2, 3, a required printing has been applied in advance on the external surfaces to form them into a card.



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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the card material for creating cards, such as an ATM card and a credit card.

[0002]

[Description of the Prior Art] Conventionally, as shown in drawing 2, although card material, such as an ATM card and a credit card, is an opaque colored chlorination vinyl sheet with a thickness of 280 micrometers or films 12 and 13, said film or sheets 12 and 13 with a thickness of 100 micrometers, and this quality of the material, it is created in thickness of 760 micrometers of JIS by carrying out heating pressurization of the four sheets of a transparent sheet or films 11 and 14 in piles, and pasting up the sheet or film with which the upper and lower sides touch.

[0003] The reason for taking such a laminated structure uses with the base material of cards (telephone card etc.) thin one sheet of a sheet or films 12 and 13. In order to enable it to use what carried out the laminating of the two sheets as a base material of a thick card (ATM card), After performing necessary printing to the external surface of said sheet which carried out the laminating to the list, or films 12 and 13 by offset printing beforehand, it is for forming a film sheet, or transparent 11 and transparent 14 as a printing protective layer on this printing side.

[0004] However, when ** et al. and a vinyl chloride are incinerated, they generate the dioxin which has strong toxicity and is known as a carcinogen, and have a possibility of it not only inviting environmental pollution, but having a bad influence on the body.

[0005] On the other hand, although the request made into the substitute of the card material made of vinyl chloride resin using a polyester sheet or a film had a strong thing in view of the trouble of the card material made of the above-mentioned vinyl chloride resin, unlike the vinyl-chloride-resin film, with polyester film, polyester film has the difficulty of not pasting up and was not able to be used for this kind of card material.

[0006]

[Problem(s) to be Solved by the Invention] After this invention makes the polyester sheet or film which is not pasted up in its comrades an adhesion laminated structure and forms it in cards, such as an ATM card, by this invention in view of the above conventional techniques, it makes it the technical problem of this invention to offer the card material for creating various kinds of cards, such as an ATM card without a possibility of generating the matter with strong toxicity like dioxin, even if it destroys by fire.

[0007]

[Means for Solving the Problem] It is characterized by having carried out heating pressurization of the base material with which the configuration of the purpose and the made this invention card material consists solving the above-mentioned technical problem of polyester film of two or more sheets of thickness suitably in predetermined magnitude through the glue line of polyolefine system resin between each base material, and pasting up.

[0008] It ** and, as for the glue line in this invention, it is desirable to laminate and form polyethylene

in the medial surface of the base material arranged on both sides and the outside of a base material which are allotted inside among the base materials which consist of polyester film of two or more sheets.

[0009] Moreover, as for the base material of two sheets which makes four sheets the number of the base materials which consist of polyester film of two or more sheets, and is arranged inside, it is desirable to use a thing thicker than the base material of two sheets arranged outside. For example, it is made for the thickness of a result to be set to 760 micrometers to the base material matched with thickness outside for the base material of two sheets arranged inside using what is 250 micrometers in consideration of the thickness of a glue line using that whose thickness is 50 micrometers.

[0010]

[Embodiment of the Invention] Next, drawing explains the example of a gestalt of operation of this invention. Drawing 1 is the cross-section enlarged drawing of an example of this invention.

[0011] In drawing, 1, 2, 3, and 4 are the base materials which consist of polyester film, it is polyester film of a white system preferably, and base materials 2 and 3 use for base materials 1 and 4 opaque colored [colored thickness is about 250 micrometers, respectively], and the transparent polyester film whose thickness is 50 micrometers, respectively. Although it is the glue line as for which 1a, 2a, 2b, and 3a, 3b and 4a laminated the polyethylene film and which formed it as a polyolefine system resin film and an example and thickness of these glue lines is set to about 30 micrometers in the plane of composition of each base materials 1, 2, 3, and 4 Glue lines 1a and 2a, this 3b, and 4a use a polyethylene film as a transparent polyolefine system resin film and an example, and when the polymerization of said base materials 1, 2, 3, and 4 was carried out, and heating pressurization is carried out and it forms in card material, it is made for thickness to be set to about 760 micrometers at least. In addition, the above-mentioned glue lines 1a and 2a, 2b, and 3a, 3b and 4a give an anchor coat beforehand to base materials 1, 2, 3, and 4, on it, extrude a polyethylene film, and laminate and form it. Moreover, said base materials 2 and 3 shall usually perform printing required in order to form in those external surface as a card beforehand.

[0012] In the above, making base materials 2 and 3 into the thickness of about 250micro If it is because base materials 2 and 3 can be comparatively rolled round as a film roll to each in a minor diameter, therefore base materials 2 and 3 are further formed from the beginning It is because it enables it to correspond to the thin predetermined thickness of a card by the above-mentioned base material 2 or one sheet of 3 like a telephone card or a ticket card at that it becomes difficult to roll round in the shape of [of a minor diameter] a roll since it becomes sheet-like, and handling convenience, such as storage and conveyance, will be missing, and a list.

[0013] Even if this invention card material constituted as mentioned above becomes unnecessary and it gives it to incineration disposal after forming it in cards, such as an ATM card, since it formed the glue line for pasting up each base materials by the lamination of polyolefine system resin, for example, polyethylene, using polyester film as a base material, it does not have a possibility of generating dioxin like the card material using a conventional chlorination vinyl sheet or a conventional film. This is because the polyester film used as a base material carries out biaxial extension of the polyethylene terephthalate film which is used for the so-called PET bottle and made high [safety]. Moreover, since this polyester film is excellent in dimensional stability in a tough top and it excels also in an electrical property, cold resistance, and chemical resistance, very good card material can be obtained by using this as a base material.

[0014]

[Effect of the Invention] This invention is as above-mentioned. this invention card material The base material which consists of polyester film of two or more sheets of thickness suitably in predetermined magnitude Since heating pressurization is carried out, it pastes up through the glue line which consists of polyethylene, it forms between each base material at a predetermined dimension and there is no possibility of generating harmful gas, after forming in a card even if it destroys by fire, it is suitable as card material which replaces the conventional vinyl chloride with the card material used for the base material.

[Translation done.]

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CLAIMS

[Claim(s)]

[Claim 1] Card material, such as an ATM card characterized by having carried out heating pressurization of the base material which consists of polyester film of two or more sheets of thickness suitably through the glue line of polyolefine system resin between each base material, and pasting up in predetermined magnitude.

[Claim 2] A glue line is the card material of claim 1 which laminated and formed the polyolefine system resin film in the medial surface of the base material arranged on both sides and the outside of a base material which are allotted inside.

[Claim 3] The base material of two sheets which makes four sheets the number of the base materials of two or more sheets, and is arranged inside is claim 1 or the card material of 2 using a thing thicker than the polyester film of two sheets arranged outside.

[Claim 4] One card material of claims 1-3 which used the transparent ingredient for the polyolefine system resin film laminated in the medial surface of the base material of two sheets arranged on the outside of card material, and this base material, and the polyolefine system resin film laminated in the lateral surface of the base material of two sheets arranged inside this card material, and printed suitably before adhesion to the lateral surface of the base material of said inside.

[Translation done.]

